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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,320	09/22/2005	Martin Fangmeier	SMB-PT160 (PC 04 182 BUS)	1123
3624	7590	03/26/2008	EXAMINER	
VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			KRISHNAMURTHY, RAMESH	
			ART UNIT	PAPER NUMBER
			3753	
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			03/26/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,320	<b>Applicant(s)</b> FANGMEIER, MARTIN	
	<b>Examiner</b> Ramesh Krishnamurthy	<b>Art Unit</b> 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 7, 9, 10 and 12 is/are rejected.
- 7) ☒ Claim(s) 8, 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

This office action is responsive to communications filed December 06, 2007.

**Claims 1 – 12 are pending.**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 5, 7, 9, 10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 1475998.

The document DE '998 discloses a backflow preventer (Figs. 1 - 3), which can be inserted into a gas or liquid line (1), comprising a closing body (4) embodied as a hollow body open on a drainage side, which limits a passage channel (Fig. 3) between the closing body and a central closing body counterpart (12, 13), the closing body (4) being displaceable by a flow medium flowing through the passage channel (5) in a flow direction (10) from a closed position, contacting the closing body counterpart (12, 13) as in Fig. 1) in a sealing manner into an open position against a restoring force of an elasticity and/or a stability of the closing body, wherein the closing body (4), in an unstressed closed position, initially contacts only a partial or edge region of the closing body counterpart (12, 13) with a partial region embodied as a sealing lip of the closing body and can additionally be pressed against the closing body counterpart with a partial region of a longitudinal extension thereof under a pressure of the fluid flowing against the flow direction (10), opening a downstream buffer volume for back flowing fluid, characterized in that and the closing body (4) is non-removably held relative to the

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closing body counterpart (4). As seen from Figs. 1 – 3, the closing body (4) remains within the gas or liquid line and such is non-removably held on the back flow preventer. The closing body counterpart does have a rounded end section (13) formed in a drop shaped manner. The closing body counterpart (12, 13) is connected as one-piece to a through flow plate (15) that has openings (14). The closing body (4) has an upstream face edge (near (18)) that contacts the gas or liquid line in a sealing manner and comprises an annular cross-sectional enlargement. The backflow preventer is indeed formed in two pieces and comprises the closing body (4), on the one hand, and the closing body counterpart (12, 13) to which is connected as one-piece the through flow plate (15).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 1 475 998.

The document DE'998 discloses the claimed invention with the exception of explicitly disclosing the openings in the through flow plate to have a honeycomb shape. In this office action provision of honey comb shape to the openings (15) in the through flow plate (14) is regarded as a design expedient that neither provides any new or unexpected result nor solves any stated problem.

5. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 1 475 998 as applied to claims 1, 4, 5, 7, 9, 10 and 12 above, and further in view of Fraser (US 2,938,532).

The document DE'998 discloses the claimed invention with the exception of explicitly disclosing the closing body's free edge to be provided with edge reinforcement.

Fraser discloses a valve arrangement wherein the closing body (27) has an edge region that is provided with edge reinforcement (31) for the purpose of enhancing the rigidity of the edge region.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the arrangement of DE'998 edge reinforcement in the free edge region of the closing body for the purpose of enhancing the rigidity of the free edge region, as evident from Fraser.

6. Claims 8 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

7. Applicant's arguments filed December 6, 2007 have been fully considered but they are not persuasive. Applicant's argument concerning the DE '998 reference that it fails to disclose a closing body that is non-removably held relative to the closing body counterpart, is unpersuasive. Non-removably held does not imply non-movably held. The arrangement in DE'998 clearly shows the closing body to be held non-removably

relative to the closing body counterpart (12, 13) in all its positions ranging from closed to open. As to any arguments related to leakage that the DE'998 device is alleged to have, it should be noted that such are being regarded as mere arguments not backed by any explicit reference to the passages in the DE '998 reference where such leakage issues may be disclosed. A through plate (15) with flow passages (14) are clearly disclosed in DE '998. As for the drop shaped rounded end section of the closing body counterpart, it should be noted that the closing body in DE '998 does have a rounded end section (13) formed in a drop shaped manner. The drop shape has not been explicitly defined in the claims. The backflow preventer is indeed formed in two pieces and comprises the closing body (4), on the one hand, and the closing body counterpart (12, 13) to which is connected as one-piece the through flow plate (15). Regarding the argument concerning the combination of DE'988 with Fraser, it is noted that Fraser does disclose (see the embodiments in Figs. 1- 15, for example) the edge reinforcement provided to the free edge of the closing body. As for the limitation "to compensate against expansion of the edge region circumference", it is noted that it is a functional limitation that the combination of DE'998 and Fraser is capable of.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson, can be reached on (571) 272 – 4887. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 – 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*/Ramesh Krishnamurthy/*

Ramesh Krishnamurthy  
Primary Examiner  
Art Unit 3753